Ruichen LI

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Education

The Hong Kong University of Science and Technology — Hong Kong
PhD in Sustainable Energy and Environment — *2021 - now*

Beijing Normal University — Beijing
Bachelor of Physics — *2017 - 2021*

Awards

Honorable Mention of Mathematical Contest In Modeling	2020
The Second Prize of Beijing Normal University Scholarship	2019 & 2020
The Third Prize of Undergraduate Physical Experiment Competition of Beijing	2019
The Second Prize of China Undergraduate Physics Tournament	2018
The First Prize of Beijing Normal University Undergraduate Physics Tournament	2018

Research experience

Supervisor: 2019-2020

Prof. Zuntao Fu, Department of Atmospheric and Oceanic Sciences, School of Physics, Peking University
Publication:
Li, R., Huang, Y., Xie, F. & Fu, Z. Discrepancies in surface temperature between NCEP reanalysis data and station observations over China and their implications. *Atmospheric and Oceanic Science Letters* 14, 100008 (2021).

- Focusing on the near-surface values of maximum and minimum temperature in the station observations and interpolated NCEP data, uncover the possible overestimation of the predictability and extreme events due to the highly overestimated time series irreversibility.
- Using Fourier decomposition to obtain the phase series from the series of observation or ideal models, analyze and quantify the nonlinear strength of the time series corresponding to the relative research.

Supervisor: 2021

Prof. Fengjie Ma, Department of Physics, Beijing Normal University

- High-throughput screening for materials with specific structure groups (Final year project)

Supervisor: 2021 - now

Prof. Haibin Su & **Prof. Zhenyang Lin**, Department of Chemistry, HKUST
Publication:
Lei, S., Wilwin, W., Li, R., Li, Z., Yu, H., Lin, Z. & Su, H. Toward thermally-stable GaN/insulator interface: high-throughput screening of the ultrathin oxynitride layer interfaces - a valence bond flux approach. *Unpublished manuscript* (2022).

Technical Skills

Languages: Python, R, C
Applications: Matlab, Origin, Microsoft Office, LaTex, Labview, Gaussian, LAMMPS